

REMARKS

The application as filed included Claims 1-22. In the Office Action of September 7, 2006, Claims 1, 2, 4-8, 20, and 21 were rejected under 35 U.S.C. § 102(e) as being anticipated by Yao (2005\0201751). Also, Claim 3 was rejected under 35 U.S.C. § 103(a) as being obvious over Yao. Claim 22 was rejected under 35 U.S.C. § 101 as including non-statutory subject matter. On the other hand, Claims 9-19 and 22 were identified as containing allowable subject matter.

Applicant gratefully acknowledges the Examiner's remark that Claim 9 would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. However, applicant believes that the limitations of Claim 9 are narrower than required. Therefore applicant has instead amended Claim 1 to incorporate additional limitations, so as to overcome the rejection in view of Yao.

Amended Claim 1 now incorporates subject matter originally included in Claim 4. In particular, Claim 1 now recites, "a first beam dividing element located to input at least a portion of the radiation from the radiation source, and to output first and second portions of the radiation along first and second optical paths" and "a second optical power-measuring detector located along the second optical path to receive radiation transmitted along the second optical path." Amended Claim 1 also now incorporates subject matter originally recited in Claim 8. In particular, Claim 1 now recites that "a signal ratio based on at least the first and second signals is indicative of at least one of a radiation wavelength, a change in a radiation wavelength, a radiation frequency, and a change in a radiation frequency, of the radiation from the radiation source." This subject matter is supported in the specification, for example, at a portion describing an embodiment of FIGURE 6A starting at page 13, line 26, which is configured for

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"determining a wavelength-related characteristic (e.g., wavelength, wavelength shift, frequency, or frequency shift) of radiation from a radiation source."

Contrary to the Examiner's remark at the top of page 5 of the Office Action, applicant has thoroughly reviewed Yao and yet was unable to find any signal ratio disclosed in Yao which is indicative of wavelength or frequency, as now recited in Claim 1. This is because the teachings of Yao are directed to finding the signal to noise ratio, the degree of polarization, and/or the differential group delay for particular pre-determined wavelengths in optical systems; Yao is *not* directed to determining or analyzing a wavelength with exceptionally high resolution, as taught in the present application.

Furthermore, amended Claim 1 also now incorporates subject matter originally recited in Claim 7. In particular, Claim 1 now recites that "the signal ratio is substantially insensitive to variations in a polarization orientation of the radiation from the radiation source". As discussed above, Yao does not teach a signal ratio that is indicative of wavelength or frequency of radiation, and furthermore Yao does not teach determining such a signal ratio that is substantially insensitive to variations in a polarization orientation of the radiation. This deficiency in Yao is not remedied by any of the other references cited by the Examiner, in that their polarizers are not properly configured to provide a wavelength-indicating signal ratio that is insensitive to variations in a polarization orientation of the radiation from a radiation source. Specifically, the polarizers of other references are not configured according to either of the elements (a) and (b) now recited at the end of amended Claim 1. Element (a) incorporates the subject matter of original Claim 20. Element (b) is supported at several portions in the specification, for example, at page 7, lines 20-24, which state "when the polarizers are similarly oriented and the S- and P-polarization components are not mixed, that is, when the polarizers are oriented such that the first and second optical beams become nearly 100% S-polarized or nearly 100% P-polarized, the

signal ratio based on the first and second signals is insensitive to the polarization direction of the input radiation."

Finally, amended Claim 1 also now recites that "the second optical power-measuring detector outputs a second signal having a second wavelength dependence that is different from the first wavelength dependence". This feature is not found in Yao because it would render the system of Yao inoperable for its intended purpose. All signal ratios taught in Yao use signals derived through identical wavelength filters, to ensure that the signals are from the same wavelength division multiplexed (WDM) channel.

Based on the incorporated subject matter, which distinguishes over the cited references for at least the reasons outlined above, applicant respectfully submits that amended Claim 1 has been placed in condition for allowance.

Remaining original and amended Claims 2-3, 5-14, and 16-18 all depend either directly, or through intervening claims, from amended Claim 1. Therefore, for at least the same reasons why amended Claim 1 is allowable, these dependent claims are also in condition for allowance.

Claim 3 has been amended to recite a configuration supported in the specification by Figures 6G, 9A and 9B and related description. Claim 5 has been amended to depend from amended Claim 1. Claims 6 and 7 have been amended to recite configurations that include either element (a) or element (b) of Claim 1, but not both. Claim 8 has been amended to depend from Claim 1 and to delete subject matter incorporated into Claim 1. Amended Claim 9 retains the allowable subject matter previously indicated by the Examiner, and has also been amended to depend from Claim 1 and to add clarification.

Claim 10 has been amended to delete the phrase "polarization sensitive surface" which was misinterpreted by the Examiner in his remark regarding original Claim 3 (the phrase does not refer to a linear polarizing film or the like, although it may apply to material *surfaces*

associated with a polarizer, as taught in Figure 4 and related description). Since almost any reflective and/or transmissive surface is a "polarization sensitive surface" as taught in the specification, it is an inherent feature of various elements recited in the claims, and need not be explicitly included. Claim 10 has also been amended to state that the "first and second optical paths have different respective first and second angles of incidence," as taught throughout the specification, for example with reference to Figures 6A-6F and related description.

Claims 11-13 have been amended in a manner consistent with amendments made to the claims that they depend from. Claim 14 has been amended to depend from amended Claim 13, and in a manner consistent with amendments made to the claims that it depends from. Claim 16 has been amended for clarity and for consistency with amendments made to the claims that it depends from. The subject matter of Claim 16, which approximately corresponds to Figure 6F and similar configurations, has not been changed. Claim 17 has been amended for consistency with amendments made to Claim 16. Claim 18 has been amended to depend from Claim 16 and to recite features supported by Figure 6F and related description.

Method Claim 21 has been amended to correspond closely to amended Claim 1. Therefore, applicant respectfully submits that amended Claim 21, and its dependent Claims 22-24, are also in condition for allowance. Amended Claim 22 corresponds closely to amended Claim 3, and thus the previous rejection of Claim 22 under Section 101 has become moot. New Claim 23 corresponds closely to amended Claim 9, including subject matter previously indicated as allowable by the Examiner. New Claim 24 corresponds closely to amended Claims 6 and 7.

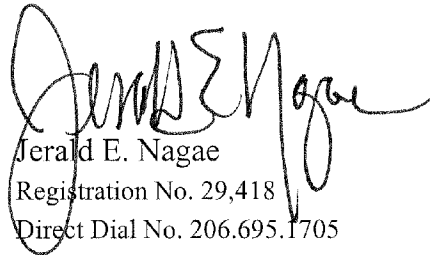
Claims 4, 15, 19, and 20 are canceled without prejudice or disclaimer.

Based on the foregoing, it is submitted that the present application including Claims 1-3, 5-14, 16-18, and 21-24, as amended, is now in condition for allowance. If the Examiner should

have any further issues to resolve, he is respectfully invited to telephone applicant's undersigned attorney at the number set forth below.

Respectfully submitted,

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